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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,468

12/20/2005

Robert Alexander Van Eibergen Santhagens

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

SWINNEY, JENNIFER B

ART UNIT

PAPER NUMBER

3724

MAIL DATE

DELIVERY MODE

03/11/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/561,468

Applicant(s)

VAN EIBERGEN SANTHAGENS,
ROBERT ALEXAND

Examiner

JENNIFER SWINNEY

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendments filed 24 February 2010 have been entered. Claims 1-9, 13, and 14 remain pending in the application. Claims 10-12 have been cancelled.

Drawings

2. The drawings are objected to because **“the blade thickness at the bending point being larger than the non-bending area blade thickness (Claim 3)”**. Figure 2 depicts, what appears to be a greater blade thickness at the bending point. However, the figures are merely a representation of the claimed invention. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term "unattached bottom side" is a negative limitation. The term "unattached bottom side" is not supported in the drawings or by an enabling disclosure and is therefore considered new matter. In order to positively recite the claimed subject matter, Applicant would have to claim a gap (or minimum width, c) is between a fixed bridge partition (5) and an unattached bottom side. Just because a Figure does not show certain structure is not support for a negative limitations such as "unattached".

5. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrase "a plurality of corresponding fixed bridge partitions having **same length** as the razor blades" is not supported by an enabling disclosure and is therefore considered new matter.

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6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 7 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase “a corresponding substantially of equal length fixed bridge” is inconsistent with the phrase “a plurality of corresponding fixed bridge partitions having same length as the razor blades” of Claim 14. It is unclear as to how the fixed bridge partitions are equal to the length of the razor blade, when the preceding claim defines the scope of the fixed bridge partitions as being substantially of equal length to a razor blade razor.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

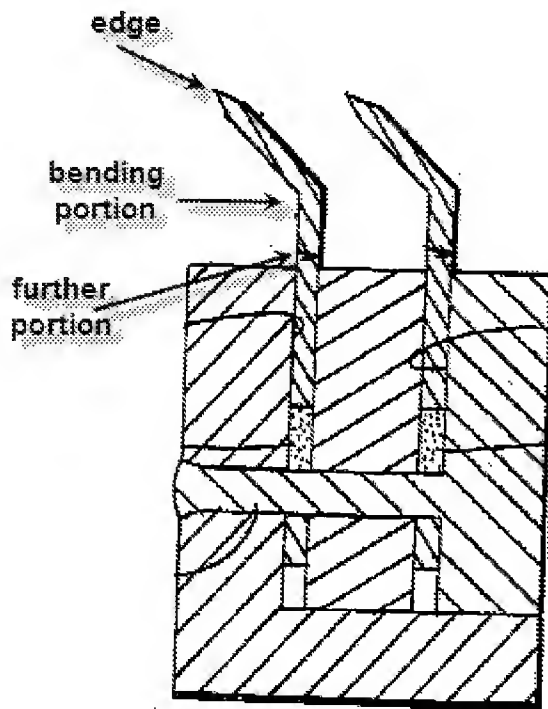
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-5 are rejected, as best understood, under 35 U.S.C. 103(a) as being unpatentable over Emmett (US 4,302,876; as cited in IDS) in view of US Patent No. 5,822,862 to Ferraro and Clark (US 972,436; as previously cited).

With respect to claim 1, Emmett discloses a razor head (it is old and well known in the art for a razor blades to be supported in a razor head) having one or more fixed bridge partitions (see figure 8) and at least one razor blade (302) attached to a corresponding fixed bridge partition of substantially equal length (see figure 8), each

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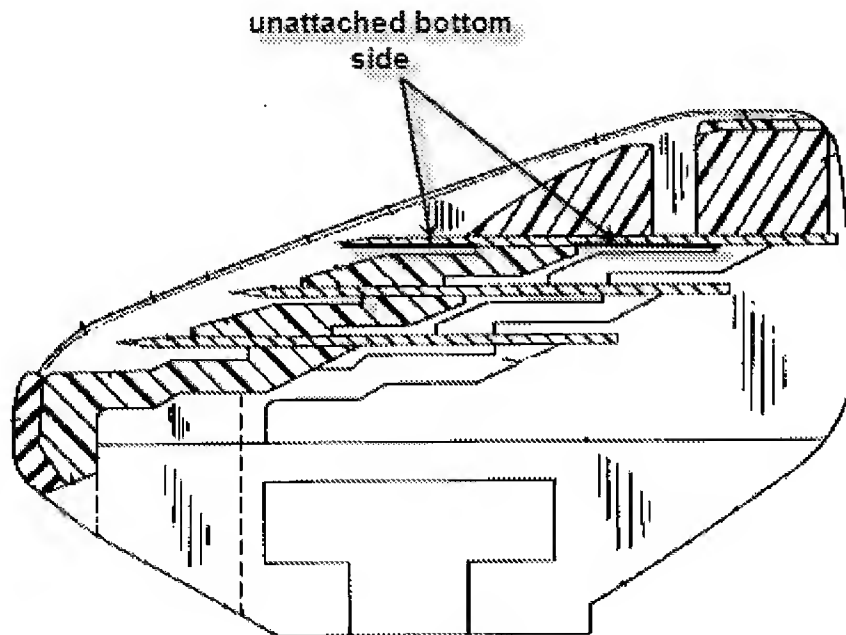
blade comprising an edge portion with a cutting edge (306), a bending portion (see figure 8, below) positioned between the edge and the further portions, where the edge portion is bent relative to the further portion (see figures 7 and 8) and spaced from said cutting edge and the fixed bridge partition (see figure 8).



Emmett does not disclose a top side of a blade attached to a bridge partition of the razor head, and an unattached bottom side, the blade wherein at least the edge portion has a material structure hardened by a first heat treatment and in that the bending portion has a locally reheated structure formed subsequent to the first heat treatment. Tempering or annealing steel blades to obtain certain levels of hardness are well known in all blade arts.

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Ferraro discloses a top side of a blade (Fig. 3, 40,50,60) attached to a bridge partition (Fig. 3, 80,80a) of a razor head, and an unattached bottom side (Fig. 3, see below). It would have been obvious to one having ordinary skill in the art at the time of invention to provide Emmett with a bridge partition as taught by Ferraro. It is old and well known to provide a bridge partition between blade members of a razor head to provide additional structural support. The bridge partition is also capable of serving as a protective guard as the blade engages the skin, creating a smoother shaving process.



Clark discloses a method of producing a razor blade wherein the entire blade is first hardened and tempered (page 1 lines 86-87) to create a hard edge which can be shaped into a cutting edge (see page 2 lines 1-2). Then areas of the blade which are intended to be bent are locally annealed (reheated) to form softer material in order to

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create a steel that is more flexible (see page 1 lines 95-99). Clark locally reheats the material (as opposed to reheating the entire blade) in order to preserve the hardness in the area of the cutting edge (see page 1 line 108 through page 2 line 2). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the technique of first heat treating the entire blade blank, and then subsequently locally annealing portions of the blade which are desired to be flexible as taught by the art of Clark to improve the blade of Emmett for the predictable result of having a hard cutting edge and a flexible central portion which can be easily bent into the angled blade as disclosed by Emmett.

With respect to claim 2, Emmet as modified by Ferraro and Clark does not disclose specific dimensions for the blade, thus Emmett does not disclose the razor head wherein the bending portion is less than 1 mm away from the cutting edge. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the head of Emmett to have the bend be under 1 mm away from the cutting edge, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. Examiner further notes that this is an issue of scale and intended use. The larger the head is as a whole, the larger the distance is.

With respect to claim 3, Emmett as modified by Ferraro and Clark, discloses the razor head wherein the razor blade has a blade material thickness, the bending portion having a larger thickness than the blade material thickness at the further portion.

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Emmett discloses that the blade is bent by "bending conventionally formed blades at some step in their manufacturing process" (column 6 lines 29-31). Through the laws of conservation of mass, a slight bulge will naturally occur during the bending process as a result of squeezing more material into a tighter place. This is why in the bending art, notching is well known to help facilitate bending as material is not needed to be displaced. Displacing the material during any sort of bend will cause a bulge and thus a larger thickness than the non bent area.

With respect to claim 4, Emmet as modified by Ferraro and Clark, discloses the razor head wherein the razor head is at least two razor blades (see figure 8) mounted parallel to each other in a razor head, wherein the edge portion of at least one of said at least two razor blades is bent towards at least one neighboring one of said at least two razor blades and projects towards said at least one neighboring one of said at least two razor blades over a distance perpendicular to the further blade portion of said razor blade which is smaller than the spacing between the further portions of these at least two of said razor blades.

With respect to claim 5, Emmett as modified by Ferraro and Clark discloses the razor blade wherein the razor blade is at least two razor blades (see figure 8), wherein each of the two razor blades are attached to a different corresponding fixed bridge partition (Fig. 3, 40, 50, 60, Ferraro), wherein a spacing is present between the cutting edges of at least two of said razor blades. As noted above, Emmett does not specifically disclose any dimensions in regards to the blade setup. Thus Emmett does not disclose the blade assembly wherein the spacing between successive cutting edges is less than

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1.2 mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the blade assembly of Emmett to have the successive edges spaced less than 1.2 mm apart, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

10. Claim 6 is rejected, as best understood, under 35 U.S.C. 103(a) as being unpatentable over Emmett in view of Ferraro and Clark as applied to claim 1 above, and further in view of Saturday Night Live "Mach 14" (first aired 5-6-00; episode breakdown provided; hereafter SNL; as previously cited) or Pelizzola (US 1,920,711; as previously cited).

The modified apparatus of Emmett discloses the razor head wherein the razor head comprises at least two razor blades mounted to a different corresponding fixed bridge partition, parallel to each other in a razor head, wherein a spacing is present between the cutting edges. Emmett does not disclose the razor blade wherein the cartridge has at least four razor blades. Examiner notes that the use of one, two, three, four, and five blades on shaver head cartridges is well known in the art.

Episode 483 of NBC's Saturday Night Live aired a skit titled "Platinum Mach 14" which features a razor having 14 blades (see provided photo). Pelizzola discloses a razor head having five blades (1-5) in order to shave "more quickly and more regularly, since the hair is cut by the various cutting edges in succession" (column 1 lines 9-11). It would have been obvious to a person of ordinary skill in the art at the time the invention

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was made to modify the razor head of Emmett to have at least four blades in view of the art of SNL or Pelizzola in order to improve the quality of the cutting experience.

11. Claims 7, 9, 13, and 14 are rejected, as best understood, under 35 U.S.C. 103(a) as being unpatentable over Nissen (US 3,489,589; as previously cited) in view of Emmett and Ferraro and in further in view of Clark.

With respect to claims 7 and 14, Nissen discloses a method of manufacturing at least one razor blade from a corresponding razor blade blank for attachment to a corresponding substantially of equal length fixed bridge partition of a razor head, the method comprising acts of: forming an edge portion (12) with a cutting edge and a, a further portion and hardening the razor blade blank by a heat treatment (10).

Nissen does not disclose reheating after hardening of the razor blade blank, a portion of the razor blade blank to bend the edge portion of the razor blade blank relative to the further portion of the razor blade blank and a top side of the further portion is attached to the bridge partition of the razor head, while leaving a bottom side unattached and spacing the bending portion from the fixed bridge partition.

Emmett discloses a razor blade (302) which is bent (having a bending portion) during the manufacturing process between the edge and the further portion, and spacing a bending portion from a fixed bridge partition. The bending takes place during the manufacturing process (column 6 lines 29-31).

Ferraro discloses a top side of a further portion attached to a corresponding fixed bridge partition (Fig. 3, 40, 50, 60) of a razor head, while leaving a bottom side unattached (Fig. 3). It would have been obvious to a person of ordinary skill in the art at

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the time the invention was made to modify the method of Nissen to include a bending step in the manufacturing process in order to produce blades which are bent in view of the teachings of Emmett to allow the blades to be rinsed better when inserted into the cartridge. It would have also been obvious to provide a bridge partition between blade members Emmitt as disclosed by Ferraro to provide additional structural support and serve as a protective guard during a shaving process. Examiner notes that the modified apparatus of Nissen still does not disclose reheating the metal after it has already been hardened. The method of Clark discloses locally reheating an already hardened blade strip in order to soften the material to make it more flexible instead of brittle (lines 94-99). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the process of Nissen to include a local reheating step in the area of the bend in order to prevent the blade from snapping. Examiner notes that the blade is too brittle to bend without reheating.

With respect to claim 9, the modified method of Nissen discloses the cutting edge being ground after hardening, but does not disclose the cutting edge being ground before bending. Examiner notes that cutting edges are typically ground after hardening in order to maintain the edge. Further, it is noted that there exists a finite number of positions for the bending of the blade stock to exist. There are four basic steps to the method: heat treating, grinding, bending after the preheating, and sectioning into individual blades. Thus, there are only four possible positions for the preheating and bending steps to take place. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to try bending the blade stock after the

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cutting edge has already been ground as a person with ordinary skill has good reason to pursue the known options within his or her technical grasp. The claim would have been obvious because "a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense."

With respect to claim 13, the modified method of Nissen, discloses the razor head wherein the razor blade has a blade material thickness, the bending portion having a larger thickness than the blade material thickness at the further portion. Emmett discloses that the blade is bent by "bending conventionally formed blades at some step in their manufacturing process" (column 6 lines 29-31). Through the laws of conservation of mass, a slight bulge will naturally occur during the bending process as a result of squeezing more material into a tighter place. This is why in the bending art, notching is well known to help facilitate bending as material is not needed to be displaced. Displacing the material during any sort of bend will cause a bulge and thus a larger thickness than the non bent area.

12. Claim 8 is rejected, as best understood, under 35 U.S.C. 103(a) as being unpatentable over Nissen in view of Emmett and Ferraro and further in view of Clark as applied to claim 7 above, and further in view of Creamer et al. (US 3,224,900; hereafter Creamer; as previously cited).

With respect to claim 8, the modified apparatus of Nissen does not disclose the local heating of the razor blade blank being carried out by use of a laser. Examiner notes that the use of a laser to heat small areas of metals is well known in the art. Also,

lasers are used to melt metals for welding. Creamer discloses that it is well known to heat metals using a laser (column 3 paragraph 2). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the modified method of Nissen to use lasers to locally reheat the metal instead of heated wheels in view of the teachings of Creamer. The claim would have been obvious because a particular known technique was recognized as part of the ordinary capabilities of one skilled in the art.

Response to Arguments

13. Applicant request the withdrawal of the drawing objection of the prior action due to amendments filed October 15, 2009.

Examiner acknowledges the amendments to Figure 2, of the amendments filed October 15, 2009, however, the drawing objection is maintained for the reasons stated above, Figure 2 depicts, what appears to be a greater blade thickness at the bending point. However, the figures are merely a representation of the claimed invention.

14. Applicant argues the prior art to Emmit in view of Ferraro and Clark does not teach one or more fixed bridge partitions, a further portion having a top side attached to a corresponding fixed blade partition and an unattached bottom side, and a bending portion positioned between the edge and further portions when the edge portion is bent relative to the further portion and spaced from the cutting edge of the fixed bridge partition.

15. Examiner respectfully disagrees. The prior art to Emmit as modified by Ferraro and Clark teaches one or more fixed bridge partitions (figure 8, Emmit), a further portion

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having a top side attached to a corresponding fixed blade partition (Fig. 3, 40,50,60, Ferraro teaches it is old and well known in the art to attached a top portion of a blade to a fixed bridge partition), and an unattached bottom side (Fig. 3, see pg. 4, above, Ferraro also teaches a bridge partition having an unattached bottom side). As previously noted, fixed bridge partitions are old and well known in the art of razor blades, therefore, it would have been obvious to provide a partition to additionally support the blade. The prior art to Emmit as modified by Ferraro and Clark also teaches an edge portion is bent relative to a further portion and spaced from a cutting edge of a fixed bridge partition.

16. In Regards to Claim 6, applicant argues the prior art to Emmit in view of Ferraro, Clark and in further view of SNL or Pelizzola show different features of the claims.

In response to applicant arguments, the arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER SWINNEY whose telephone number is (571) 270-5843. The examiner can normally be reached on Monday-Friday, 7:30 am-5:00 pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Daniel Prone/
Primary Examiner, Art Unit 3724

09 March 2010

/JS/